

Symposium title: Evaluating teachers' improvement in sustained professional development efforts in a Nordic context: challenges and possibilities in methodology and ethics

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Abstract for the entire symposium

The context of teaching has changed dramatically over the last few decades. We increasingly expect teachers to continuously improve throughout their careers. They are required to adapt their teaching to curricula, new technologies, and demands from parents, and to differentiate their instruction to meet the needs of diverse learners. Such changes also increase the need for opportunities to develop as professionals after teacher training (Bressman et al., 2018). Research has repeatedly shown that formal in-service professional development (PD) is ineffective for improving teacher practice and student achievement due to its general and abstract focus (Borko, 2004; Harris & Sass, 2011; Wei et al., 2009). Rather, features of effective teacher PD initiatives, as summarized by Desimone and Pak (2017), involves a clear *content focus* (Garet et al., 2016), focuses on teachers' *active learning* in contrast to passive lecturing (Darling-Hammond, 2010; Putnam & Borko, 2000), integrates PD into the larger school system (*coherency*) (Borko, 2004; Wei et al., 2009), has *sustained duration* (Sailors & Price, 2015; Teemant, 2014), and involves *collective participation* in which teachers within the same school and subject participate together in the PD, building a learning community (Garet et al., 2016; Putnam & Borko, 2000). These features have been taken into consideration when designing two professional development interventions in Norway and Sweden respectively, conducted as site-based and sustained PDs that targets the use of research-based instructional elements (e.g. feedback, strategies instruction, modeling).

In this proposed symposium, we discuss how to evaluate the outcome of PD efforts. We seek to add to the knowledge base by raising crucial issues of how we can gain knowledge of the impact of these often time-consuming and costly endeavors. We focus on design, methodology, and ethical issues related to site-based, individualized, and sustained PDs in literacy pedagogy (cf. Bean et al., 2010) that targets the use of research-based instructional elements, involving PD programs in both Norway and Sweden. The symposium is composed by three papers:

Paper 1 (Tengberg) focuses on the impact of professional development through both teacher self-reports and student perceptions in a Swedish context.

Paper 2 (Magnusson & Luoto) focuses on how teachers' communicated experiences compose a valuable factor in evaluating PD outcomes, exemplified by teachers' perceptions of successes and challenges in a video-based longitudinal professional development intervention in Norway.

Paper 3 (Blikstad-Balas) discusses methodological and ethical aspects of measuring improvement of teachers' professional development related to video recordings and use of observation manuals.

The three papers discuss different aspects of evaluating PD efforts, considering teachers' and students' perspectives in connection to particular PD interventions as well as a more overarching focus on the dilemmas of methodology and ethics related to the use of video and observation manuals. Together, the papers discuss challenges and possibilities in methodology and ethics in PDs in a Nordic context.

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Extended abstract

The proposed symposium aims to raise and discuss imperative issues in how we gain knowledge of the outcome of professional development efforts. Two of the presentations focus on discussing approaches to evaluating PD outcomes related to specific PD intervention studies in Sweden and Norway respectively, concentrating on both teachers' and students' perceptions, while the third addresses issues in methodology and ethics in evaluations of these PD efforts more generally, focusing in particular on video recordings of teachers and the use of an observation manual.

Research has repeatedly shown that formal in-service professional development (PD) is ineffective for improving teacher practice and student achievement due to its general and abstract focus (Borko, 2004; Harris & Sass, 2011; Wei et al., 2009). Rather, effective teacher PD initiatives, as summarized by Desimone and Pak (2017), involve the following features: content focus, active learning, coherency, sustained duration, and collective participation. *Content focus* entails subject-specific activities that have been demonstrated to have a positive impact on student achievement (e.g., Garet et al., 2016; Harris & Sass, 2011). In contrast to passive lecturing, *active learning* involves opportunities for teachers to be actively involved, such as with PDs grounded in teachers' own classroom practices (Darling-Hammond, 2010; Putnam & Borko, 2000). *Coherency* integrates PD into the larger school system, which may include state-level policies, school and curriculum goals, teacher beliefs, and student needs (Borko, 2004; Wei et al., 2009). *Sustained duration* denotes ongoing, intensive PD throughout the school year with a certain number of hours—an aspect supported by many empirical studies (Biancarosa et al., 2010; Hindman & Wasik, 2012; Sailors & Price, 2015; Teemant, 2014). *Collective participation* entails teachers within the same school and

subject participating together in the PD, building a learning community (Garet et al., 2016; Putnam & Borko, 2000).

Another important element in PDs –permeating the abovementioned factors –relates to the involvement of external expertise, since teachers need to be given «structured and facilitated opportunities to engage with new evidence, theory and practice» (Cordingley et al., 2015, p. 11), which often takes form of the use of expert coaches. In general, studies have shown that instructional coaching can inspire teachers to make sustained changes in their instruction and improve student learning (Biancarosa et al., 2010; Coburn & Woulfin, 2012; Fisher & Frey, 2014; Hindman & Wasik, 2012; Teemant, 2014). Employing experts to guide teachers in meaningful inquiry can be an important support to teacher learning and instructional improvement (Youngs & Lane, 2014). As pointed out by Coburn and Russell (2008), effective instructional coaches play an important role in creating opportunities for teachers to engage in professional discourse that help them better understand their practice. The goal of instructional coaching is to help teachers grow accustomed to critique and suggestions for improvement of their instructional practice and be receptive to feedback that such improvement requires (Youngs & Lane, 2014). However, not all PD coaching has such effects (see Kennedy, 2016), and we know relatively little about how it works when targeted at specific instructional elements that are effective but challenging to implement in daily teaching situations, such as scaffolding practices (van de Pol et al., 2010).

Some of the most common challenges constraining the benefits of PDs are related to how well the PD is managed and integrated by the school leadership. Primary concerns for teachers are insufficient time for collaborative and individual sessions with coaches (Gross, 2010; Jacobs et al., 2017) and too little time for long-term research-based support in planning and developing instruction in line with the coaching program (Tengberg & Wejrur, 2021). The nature of the PD also influences teachers' perceived benefits. Teachers tend to perceive the PD as most beneficial when it is individualized and tailored to their independent goals (Teemant, 2014). They value specific feedback and a limited amount of suggestions on how to improve practice (Hammond & Moore, 2018). At the same time, some teachers appreciate that the PD apply flexible views of standards (Hunt, 2019). Teachers in PD studies also highlight that it is essential to take into account the contextual realities of teachers and their students.

As emphasized by Girvan et al. (2016), teachers' in-class teaching behavior and practices are improved by reflection on, observation of, and discussion about their experiences. To facilitate the reflection and discussion, video has proven to be an important tool (van Es et al. 2019). And in order to have a specific focus for the observation and a common language on which to build the professional reflections and discussions, observation manuals have shown to be of considerable value (Evertsen et al., 2022). The two PD interventions that we report on, and which form the basis of our discussion in this symposium, both involve video-based instructional coaching and make use of research-based elements from an observation manual (PLATO) (Grossman, 2015). Although having implemented what prior research considers "effective" PD characteristics into the design of these PDs, it remains a pressing issue how to evaluate the outcome of specific PD efforts in different contexts, linked both to teachers' professional learning and, consequently, to student achievement. Moreover, implementing features of presumably successful PDs may involve different methodological and ethical considerations in different contexts. The aim of this symposium is therefore to add to the knowledge base by discussing how we can gain knowledge of the impact of PD endeavors in a Nordic context.

The three papers in the symposium are all connected to the Nordic Centre of Excellence: Quality in Nordic Teaching (QUINT) and build on the use of videos to support teachers' professional learning (Theme 3 in QUINT). The papers discuss dilemmas and promises in evaluating PD programs and are thus relevant for the QUINT ambition as they connect to the aim of Theme 3 in QUINT, to support teachers' professional learning.

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Paper 1: Evaluating the impact of teacher PD through teacher self-reports and student perceptions

Michael Tengberg, Karlstad University

Abstract

Prior studies suggest that substantial investments in professional development (PD) are well motivated (Allen et al., 2011; Chetty et al., 2014; Hanushek, 2011). According to reviews and meta-reviews, there is a consensus that effective PD should be fueled by external expertise, practice-based, self-selected, sustained, collaborative, and subject specific (Cordingley et al., 2015; Dunst et al., 2015). Yet to evaluate the impact of composite initiatives is a complicated matter (Sims & Fletcher-Wood, 2021), especially in a Nordic educational context where established PD infrastructure is rare, and sustained, and completed, PD modules are often small-scaled (Prøitz et al., 2022; Ryve et al., 2016).

This paper reports an attempt to evaluate the impact of a PD program designed according to abovementioned criteria of effectiveness (Tengberg et al., 2022). The purpose, however, is not to report data on effects, but rather to use the collected data to address methodological challenges. In the program, 45 Swedish language arts teachers were gradually introduced to six elements from *The Protocol of Language Arts Teaching Observation* (PLATO, Grossman, 2015), they were videotaped and observed in their classrooms, received PLATO-based feedback, and reflected on their gradual progress in local groups. Because classroom observations are costly, time-consuming, and would in this case be inappropriate as measure of improvement, impact of the intervention was estimated by teacher self-reports and student perceptions post intervention. While both of these provide a form of first-hand experience of the assumed improved practice, they also have apparent disadvantages. Teacher self-reports might for several reasons, although unintentionally, exaggerate the extent of change in practice (Goe et al., 2008; Tengberg, 2022). Student perceptions by well-designed survey items have been suggested to provide reliable measure of teaching quality (van der Lans, 2018; van der Scheer et al., 2019), but the extent to which students' perception of practice align with theoretically defined constructs of presumed improvement is unclear (Fauth et al., 2014; Maulana & Helms-Lorenz, 2016).

Findings of the study revealed that a majority of the teachers reported that the intervention had a sustained effect on their practice, and that their teaching had improved as defined by the target PLATO variables. As an example, 82% agree or strongly agree that their students receive more qualified feedback on their work after the program than they did before. Consistent with those reports, student survey responses indicated that these practices were indeed generally frequent in the intervention classrooms. However, students in a control group, who were at the same schools but whose teachers had not participated in the intervention, reported similar, or in some cases higher, levels of the target practices. Reservations should be made for the fact that the control group was small, but the findings still raise the question about what an appropriate measure of PD effect is.

Discussion points of relevance include the reliability of teacher self-reports, the inappropriateness of observation, and scale properties and timing of student surveys. The discussion also provides some non-quantitative but highly significant alternative evidence of impact.

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Paper 2: Teachers’ experiences as a means to evaluate professional development outcomes: The case of a longitudinal PD intervention in Norwegian secondary schools

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Abstract

To better understand how PDs can be effective, we need knowledge about the process by which teachers grow professionally and the conditions that support and promote that growth (Sancar et al., 2021). This study sheds light on how a professional development program – that includes many of the factors deemed to be important for successful development (Bayar, 2014; Desimone & Pak, 2017) – is experienced by the participating teachers. It shows how eliciting teachers’ thoughts and feelings around taking part in a PD program can contribute to our understanding of what factors that drive success, which can guide future PD designs.

The study involves nine lower secondary language arts teachers’ experiences of a two-year long professional development (PD) program in Norway, designed as a video-based coaching focusing on instructional scaffolding. The PD was grounded in site-based, individualized, and sustained PD in literacy pedagogy (cf. Bean et al., 2010) and targets the use of three research-based

instructional elements within the dimension of scaffolding: modeling, strategy use, and formative feedback, drawing on the Protocol for Language Arts Teaching Observation (PLATO, Grossman, 2015). We conducted semi-structured interviews designed to broadly elicit teachers' perspectives of what they perceived as challenges and successes in the PD.

The teachers reported on several different ways the PD was a success, such as introducing a common language for discussing their work, raising awareness of their own instruction when watching themselves on video, and enhancing their scaffolding skills. Many teachers stated that they now try to implement the scaffolding elements when it is natural to do so. Still, none of the teachers could yet report on their students actually learning more after the PD – which is the intention of most PDs. The teachers also refer to a mix of challenges in implementing the instructional scaffolding, related to the video-based coaching, school leadership, and theory of scaffolding.

The study indicates that PD programs need to be tailored more specifically to the individual needs of teachers, especially when it comes to their need for spending more time and engagement in understanding the theoretical framework, and how to connect theory and practice. Although the PD intervention was designed to allow a great deal of flexibility in how the coach-teacher dyads worked together for improving classroom practices, this study indicates that more emphasis should be put on each teacher's expectation in advance – and throughout – the intervention.

It is difficult to reliably measure the effects of in-service PDs, and we here argue that using teachers' communicated experiences can give meaningful information about both what teachers perceive as useful in participating in such a PD as well as unfulfilled expectations, both from the teachers' and in terms of the intention of the PD. However, implementing new practices takes time, and while this approach does not give straightforward answers to whether or not scaffolding practices are being successfully implemented to support student needs, it gives valuable information of how future PDs can be designed to be flexible enough to comply with teachers' both collective and individual needs in order to accommodate success.

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Paper 3: Methodological and ethical aspects of measuring improvement in professional development efforts

Marte Blikstad-Balas, University of Oslo

Abstract

In terms of acquiring knowledge of the impact of a professional development effort, we need to decide on the best way to measure whether the professional development produces the outcomes we seek, and to consider pressing dilemmas in terms of methodology and ethics in the measurement process. Although prior research has shown that focusing the measurement on core features of PD (e.g. content focus, active learning, coherence) as an important avenue for measuring PD outcomes (Desimone, 2009), we still struggle with making a clear connection between PD interventions and

the desired outcome in terms of teacher learning and student achievement, largely due to challenges in methodology and ethics.

Over the last decades, video has become a very popular resource not only for the documentation of practices in classrooms, but also for systematic attempts to improve the ways teachers systematically reflect upon teaching – and ultimately how they actually teach (van Es, Tekkumru-Kisa et al. 2019). In other words, video has made its way into the field of professional development – and today it is considered one of the most powerful tools available to make teachers reflect upon, and change the way they enact teaching (Körkkö et al. 2019; Baecher 2020; Brouwer 2022). Conjoint with the use of video, the use of observation manuals in professional development has shown to contribute to positive structures for professional community and development and to enhance individual and collective learning (Evertsen et al., 2022). Observation manuals can be helpful as they can contribute to a shared and explicit understanding of teaching (Klette & Blikstad-Balas, 2017; Klette, 2023). As pointed out by Hill and Grossman (2013), if teacher observation instruments are to support teachers in improving instructional practice, they must provide information that is both accurate and useful for teachers. Thus, what kind of manual we choose and how we make use of this to provide feedback to teachers involve both ethical and methodological considerations.

In this paper, we will discuss some of the ethical and methodological problems associated with video-based PD, especially PD drawing on observation manuals aiming to measure specific teaching practices. Ethically, we will concentrate on the problems of recruiting participants into programs requiring high fidelity – and how the ideal of pre-test and post-test may threaten the ideal of informed consent at all stages of the process. Further, we will discuss the ethical aspects of recording teachers in vulnerable situations, when trying out new things and attempting to take up target practices. Methodologically, we will discuss the factors making it difficult to “measure improvement” when using multiple observation scores, the difficulties in knowing how sustainable the measured progress (if any) actually is, as well as the distinction between measuring teacher improvement and measuring improvement in student achievement.

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